

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 September 2005 (22.09.2005)

PCT

(10) International Publication Number
WO 2005/086754 A3

(51) International Patent Classification:
A61K 31/341 (2006.01)

(21) International Application Number:
PCT/US2005/007316

(22) International Filing Date: 7 March 2005 (07.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/551,089 8 March 2004 (08.03.2004) US

(71) Applicants (*for all designated States except US*): **GEORGIA STATE UNIVERSITY RESEARCH FOUNDATION, INC.** [US/US]; University Plaza, Atlanta, GA 30303 (US). **THE GOVERNMENT OF THE UNITED STATES OF AMERICA** as [US/US]; REPRESENTED BY THE SECRETARY, OF THE DEPARTMENT OF HEALTH AND HUMAN SERVICES, CENTERS FOR DISEASE CONTROL AND PREVENTION Washington, DC 20201 (US).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **BOYKIN, David, W.** [US/US]; 1369 Springdale Road, NE, Atlanta, GA 30306 (US). **STEPHENS, Chad, E.** [US/US]; 412 Old Mill Drive, Carrollton, GA 30117 (US). **SECOR, W. Evan** [US/US]; 2907 Thornbriar Road, Atlanta, GA 30340 (US). **CROWELL, Andrea, L.** [US/US]; 750 Culley Road, Holland, OH 43528 (US). **KUMAR, Arvind** [IN/US]; 75 Jon-Jeff Drive, Lilburn, GA 30047 (US).

(74) Agent: **TAYLOR, Jr., Arles A.**; Jenkins, Wilson & Taylor, P.A., University Tower, Suite 1400, 3100 Tower Boulevard, Durham, NC 27707 (US).

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
8 September 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: DICATIONIC COMPOUNDS FOR ACTIVITY AGAINST TRICHOMONAS VAGINALIS

(57) Abstract: Dicationic compounds for the treatment of *T. vaginalis* infections are described. The presently described compounds exhibit in vitro activity against metronidazole-sensitive and -resistant *T. vaginalis* isolates. Furthermore, the presently described compounds demonstrate IC₅₀ concentrations that were not elevated in the metronidazole resistant isolate, suggesting that their activity is not affected by parasite mechanisms that confer resistance to 5-nitroimidazoles.



WO 2005/086754 A3